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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interest of Lake Carriers and improve the character of the service rendered to the public.

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CLEVELAND, O.

Mr. E. Platt Stratton, chief engineer surveyor for iron and steel vessels classed in the "Record of American and Foreign Shipping" visited this port Wednesday on his way east. Mr. Stratton has spent an enjoyable vacation on the lakes and speaks in high terms of the courtesies received at the hands of vesselowners and others. The trip up to Duluth was taken on one of the whalebacks.

The Ship Owners Dry Dock Co., have declared a semi-annual dividend of five per cent payable on August 15th. So excellent a showing, after the large construction expense speaks very highly for the management and general workings of this extensive plant and the shareholders are to be congratulated on their valuable investment.

Mr. Luther Allen, secretary and treasurer of the Globe Iron Works Co., has returned from Portland, Me., after delivering the new steel light-house tender Lilac into the hands of the department, by whom she was accepted promptly on arrival. I learn that all interests vied with each other in praising the construction, equipment and general ability of this handsome little craft. The George Hall Co., of Ogdensburge, N. Y., fitted pontoons on the steamer and canalled her down to Montreal, with every possible despatch. Mr. Hall is winning golden opinions from Cleveland vesselmen and I again hear of his courtesy, upright character and fair dealing. It was found that the Kingston pontoons were too wide for the canals, besides an exorbitant figure was asked for their use, so that the Hall pontoons have been engaged for the Columbine, the second light house tender built by the Globe. The Lilac was 16 days from the shipyard to Portland though she was under way only 10 days of this time, she steamed an easy 12½ miles per hour and her engines were pronounced as working perfect and to the complete satisfaction of the officials of the Light-House Board.

The Scotch built steamer Rosedale arrived in port Wednesday and loads coal for Lake Superior to-day.

The keel for a large whaleback steamer specially designed for the Pacific ocean lumber trade will be laid at Everett, Wash., in a few weeks. Six pole spars stepped in miniature turrets the height of a good deck load, say ten feet, carry jib headed trysails and from a painting showing the vessel loaded and canvas set, she looks well able to take care of herself, and more shipe-shape than anything yet represented in that type of construction.

The Cleveland Dry Dock Co. are now meeting with every success in the constructive work of their enlarged dry dock. Though work is fully sixty days behind on account of the past heavy rains and the cofferdam giving way, there is every probability of the dock being in business order before the close of navigation.

Two adjoining lake ports of 300,000 population having no direct passenger line by water argued a lack of enterprise. Cleveland capitalists have now stepped to the front and secured two handsome side wheel steamers at a cost of $275,000, for daily service on the Buffalo Cleveland route next season The officers of the company have not yet been elected, but among the prominent members are Mr. M. A. Bradley, president of the Lake Carriers Association; Messrs. Chisholm, Page and Moody, of the Cleveland Rolling Mill Co.; W. J. White, George W. Gardner, J. S. Case, J. K. Bole, John C. Fitzpatrick and T. F. Newman. During the winter the boats will be given a thorough overhauling, an entire new outfit and a sumptuous equipment. Should the season be as brisk as the present outlook would indicate the earnings will probably amount to 50 per cent. of the cost of the boats.

The handsome new steam yacht Bonita, built by the Detroit Boat Works for Mark Hopkins, a wealthy Michgan vessel owner, called at this port Tuesday on her way to Lake Ontario.

Capt. Thomas Wilford ran the Sault by night on his last trip down with the steamer Samuel Mitchell. He corroborates the claim of Colonel William Ludlow, Colonel O. M. Poe, and others, that four or five more range lights are needed to make the passage safe.

Chaplain Jones, of the floating Bethel, has been again voted "a good Samaritan" for his voluntary and earnest labor in a case of destitution brought to his notice last week. There is no more zealous worker in the wide field of philanthrophy than the well known Chaplain has proved himself to be, and his hearty efforts are well appreciated by those who can assist him in the work to which he has devoted his life. Sailor or soldier, regardless of creed or color, a signal of distress, brings Chaplain Jones within hailing distance and he don't "heave to" at that either, but pulls right out to render the best possible assistance. A few more like him and lots of ills would work together for good.

Mr. George Elsey, Jr., manager of Captain S. B. Grummonds wrecking and towing fleet is in the city to day.

CHICAGO, ILL.

Special Correspondence to The Marine Record.

Grain freights were steady Tuesday at 2½ cents on wheat, 2¼ cents on corn to Buffalo.

The steamer Samoa arrived here, light, from Milwaukee, Saturday morning, and loaded 53,000 bushels of wheat. When on her way down Chicago river, Saturday night, near Harrison street, she fouled a log, which broke her wheel and rudder and badly damaged her stern bearing and shoe. She was towed to Armour's elevator at Goose Island, where her cargo was discharged, and she was then taken to Miller Bros'. shipyard and placed in dry dock for necessary repairs.

The L. M. and L. S. T. Co.'s steamer City of Traverse, Capt. Twitchell, which was due here Monday from Lake Superior, became disabled when off Marquette, by the breaking of the connecting rod of her engine on Saturday. She put into Marquette, where repairs will be made to her machinery. The company's steamer Peerless will bring along her passengers to Chicago, and the steamer Lora, of the Vandalia Line, will take the place of the City of Traverse the next trip.

The Goodrich Co.'s splendid steel twin screw steamer Virginia, which had recently received two new four-blade sectional Globe wheels, left Chicago Sunday morning on a trial trip of speed. President Goodrich was accompanied by O. S. Richardson, C. F. Elmes, Stewart Moore, Capt. John W. Gilman, William E. Elliott, and many other friends. The Virginia passed out of Chicago piers at 9:27 a. m. and arrived at Milwaukee piers at 2:13 p. m., making the run of 85 miles in 4 hours, 43 minutes. Engineer Phil. Roth says she would have beaten that time considerably had not the firemen got tired out during the last half of the run.

The Union Line steamer Owego, when coming out of one of the Illinois central slips in tow of the tug C. B. Green, Tuesday morning, struck the Lehigh Valley Line steamer Cayuga which was laying at that company's dock loading, a glancing blow with her stem, smashing up a fender and tearing off about 30 feet of the wooden portion of her whale strake.

The whaler Progress is at a dock next State street on the south side of the river, and is being visited by a large number of persons who pay 25 cents to view the curiosities on board secured on her whaling expeditions.

At Miller Brothers' shipyard the steamer Hiawatha was in dock and had her stern bearing fixed, the tug Hall had her shaft straightened, tug Dixon received a new wheel, tug Meteor repairs to wheel, tug Chicago is receiving considerable new bottom planking and necessary repairs. The tug Rebel has also received considerable repairs.

The steamer Lucille, Capt. P. Bowe, bedecked with flags, took out her owners, Messrs. Shailer and Schniglan, City Commissioner Aldrich, City Engineer Clarke, and several other city officials on Friday last, to the new water works crib which had been built and sunk by Messrs. Shailer & Schniglan 6,000 feet off Lake View. The work was inspected and pronounced very complete, and on Saturday the water was turned on, affording a great convenience to the inhabitants of Lake View.

Capt. George W. Streeter launched his new steamer "Maria the Squatter," at the foot of Superior street, on Wednesday last. She is 40 feet over all, 12 feet beam, 4 feet hold, engine 6 by 12, water tube boiler 5 feet 8 inches high, 3 feet 8 inches diameter. She is a very handy little craft, and has been licensed to carry 50 passengers.

Capt. Collins, of the steamer William Edwards, which arrived here Saturday, with consorts, the Golden Age and Charles Foster, all coal laden from Buffalo, reports that the previous Wednesday morning, between two and three o'clock, just after crossing Thunder Bay, the steamer was struck by lightning. The man at the wheel was knocked down, and felt the effects of the shock for several hours. A fireman and coal passer also received a shock, though fortunately all have recovered. Capt. Collins says that the stroke of lightning affected the steamer's compasses. Capt. Flor, of the Golden Age, also received a slight shock from the lightning on board his vessel at the same time.

Capt. William Dall, assistant vessel despatcher, is a candidate for keeper of the new water works four mile crib. I wish him success.

Capt. Stines left with his crew Friday for Detroit to bring the new steamer Chicora to Chicago. The boat will be given a five hours' trial trip at Detroit, and, if found satisfactory, will leave Sunday for St. Joseph, arriving about Wednesday, and then coming to Chicago Friday to begin her regular trips.

The Lake Carriers' shipping office was moved Monday to No. 166 Jackson street. The reason for the change, said John G. Keith, chairman of the Lake Carriers' Local Committee, "is to get our sailors away from the swarms

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MUST BE CITIZENS OF THE UNITED STATES.

An interesting question has been presented to the Treasury Department in regard to the steamships City of New York aud City of Paris, the owners of which are preparing to have them documented as American vessel, in accordance with the provisions of a special act of Congress, granting them the privilege under certain conditions. The steamship company is anxious to retain the present complement of officers of those vessels, most, of whom, however, are of foreign nationality, and in order to bring them within the law requiring vessels of the United States to be officered exclusively by citizens of the United States, the companies took steps to secure their speedy naturalization. This, however, is a very slow process. The officers in question have already taken out their first papers, but have to serve out the full probationary period before they become full fledged citizens. Leaving out the question of their financial ability to remain idle during that period, the company itself is unwilling to sacrifice them for untried men of American cititenship. Accordingly as a test case, application was made to the Treasury Department for the retention of Capt. Watkins as master of the City of Paris during his probational period of naturalization. The Commissioner of Navigation, to whom the matter was referred, has replied that the law is obligatory as to the citizenship of masters of United States vessels, and that such citizenship in the case of an alien is not established until he shall have fulfilled all the requirements of the naturalization laws. Unless this decision is reversed, the steamship company will have to secure a new set of officers for the two steamships, or else delay the documenting of the vessels under United States laws until the present officers can legally serve.

THE BUREAU VERITAS.

The fact having been announced in the columns of the last issue of the RECORD that Bureau Veritas intended to appoint agents and surveyors to classify the tonnage of the Great Lakes. The following system and personnel of this international classification society taken from the "Nautical Magazine," will be of interest to lake vessel-owners, masters and brokers:

The Society of Bureau Veritas was estsblished on July 1st., 1828. It is thus older than the existing society of Lloyd's Register, which was formed in 1834, but not really older than the institution which had been previously carried on by other societies. Veritas had its home in the first instance in the city of Antwerp, and was started under the patronage and with the assistance of King William I. of the Netherlands, who advanced twenty thousand florins to its promoters, re-payable in twenty-five years. Such, however, was the success of the society that the loan was repaid in ten years. In consequence of the long stay of Veritas in Paris it is often spoken of by shipmasters as French Veritas or even as French Lloyd's. At one time there was a maritime register at Bordeaux, but at present there is no distinctly French society apart from Veritas.

About the year 1855 it was the case that nearly all the French mercantile marine were classed in Veritas, and ship-owners began to express dissatisfaction with an inspection to which they submitted voluntarily as compared with the official inspection which was compulsory, a commission of inquiry was appointed by the government, and the conclusion arrived at was, that Veritas did its duty, and that it was not advisable for the government to interfere with its operator.

One peculiarity of Veritas rules is, that to meet the case of iron of superior quality being frequently used in shipbuilding, they have established a system of tests for this material similar to steel tests. and have a separate table of scantlings for ships built of it. Steel is required to have an ultimate tensile strength of 27 to 32 tons per square inch of section. Common iron is assumed to have a minimum strength of twenty tons with the fibre, and superior iron is supposed to have a strength of 22 tons per square inch with the fibre. In the case of superior iron being used, the metal has to be as rigorously and systematically tested as is required in the case of steel.

Bureau Veritas is in its constitution a private society. Its administration is in the hands or a Board of Directors in Paris, eight in number. It has a technical staff at its offices in Paris, of whom the chief is Mons L. Piaud, an engineer and naval architect, trained in L'Ecole Polytechnique, Paris. Alterations in the rules, which are necessary from time to time, are discussed by a technical committee of the chief surveyors. This committee consists of twenty-six members, who are widely scattered, and hence it meets at somewhat long intervals. In the early part of its career most of the surveyors of Bureau Veritas were retired shipmasters; but at the present day its staff is recruited from technical engineers and shipbuilders.

Figures, given in the number of Lloyd's Register just issued, enable us to compare in some way the magnitude of the operations of the two chief societies for the registry of shipping. Lloyd's classes are held by 3,007 sailing vessels and 5,257 steamers, giving a grand total of 8,264 vessels. Veritas classes are held by 5,020 sailing vessels and 1,252 steamers, giving a grand total of 6,272. It must, however, be remembered, that these figures are those of the numbers of vessels merely, and that the average tonnage of vessels classed by Lloyd's would much exceed those classed by Veritas. Further, a much larger proportion of the vessels classed by Veritas are wood than of those which hold Lloyd's class. At present, 4,819 iron vessels and 2,649 steel vessels are classed in Lloyd's whereas, 1,001 iron vessels and 559 steel vessels are classed in Veritas.

The Bureau Veritas were first in publishing a list of the shipping of the world, classed and unclassed. Lloyd's commenced a Universal Register in 1887, but as long ago as 1870 Veritas started with an annual publication. This work is now issued in two volumes; the first contains the names of all sea going sailing vessels over 50 tons register, the second contains all sea-going steamers of over 100 tons register. Bureau Veritas also publishes monthly lists of maritime casualties throughout the world.

BUFFALO HARBOR IMPROVEMENTS.

A circular addressed to "All parties interested in navigation and in the construction of the outer harbor of Buffalo," has been issued by Maj. Ruffner of the United States Engineer's office at that port, and reads as follows: "The adopted project for the work on the outer harbor of Buffalo contemplates an extension of the main breakwater of 800 feet more to the present structure. Then the sand-catch pier is to be extended to 16 feet of water, and an arm 2,800 feet long, will be built so as to lap the south end of the breakwater, leaving an opening 150 feet wide for an exit. The funds now available can build, next year, all of this work except 350 feet of the breakwater and 800 feet of the shore arm near that structure. When this is done the outer harbor would be practically secure for piers and wharves.

"It has been suggested that this proj ct should be modified and the main breakwater extended to the south, finally reaching Stony Point, by struc ures which would aggregate 13,350 feet in length south of the breakwater, or 10,500 feet more than at present contemplated. The work would largely increase the proposed harbor room and would be, of course, very expensive and consume a long period in construction. If any change is to be made in the project, now is the time to make it.

"An expression of your views is requested at your earliest convenience."

PLANS have been prepsred for a fine steel bark of about 1,400 tons, to be built in Boston, Mass. The iron sailing ships built in the United States are few and far between; the Tillie Starbuck, T. F. Oakes and the Clarence S. Bement, are about the only iron ships ever built in the States, and the new departure may mark an era in the building of iron and steel sailing vessels for general cargo purposes.

THE steamer P. P. Pratt, on her last trip up, was struck by lightning on Lake Erie, losing her mizen mast and rigging.

THE CLAUSE "GENERAL AVERAGE, PAYABLE ACCORDING TO YORK-ANTWERP RULES OF 1890" IN BILLS OF LADING.

RULE I.—JETTISON OF DECK CARGO.

No jettison of deck cargo shall be made good as general average.

Every structure not built in with the frame of the vessel shall be considered to be a part of the deck of the vessel.

RULE II.—DAMAGE BY JETTISON AND SACRIFICE FOR THE COMMON SAFETY.

Damage done to a ship and cargo, or either of them, by or in consequence of a sacrifice made for the common safety, and by water, which goes down a ship's hatches opened, or other opening made for the purpose of making a jettison for the common safety, shall be made good as general average.

RULE III.—EXTINGUISHING FIRE ON SHIPBOARD.

Damage done to a ship and cargo, or either of them, by water or otherwise, including damage by beaching or scuttling a burning ship, in extinguishing a fire on board the ship, shall be made good as general average; except that no compensation shall be made for damage to such portions of the ship and bulk cargo, or to such separate packages of cargo, as have been on fire.

RULE IV.—CUTTING AWAY WRECK.

Loss or damage caused by cutting away the wreck or remains of spars, or of other things which have previously been carried away by sea-peril, shall not be made good as general average.

RULE V.—VOLUNTARY STRANDING.

When a ship is intentionally run on shore, and the circumstances are such that if that course were not adopted, she would inevitably sink, or drive on shore or on rocks, no loss or damage caused to the ship, cargo and freight, or any of them by such intentional running on shore, shall be made good as general average. But in all other cases where a ship is intentionally run on shore for the common safety, the consequent loss or damage shall be allowed as general average.

RULE VI.—CARRYING PRESS OF SAIL.—DAMAGE TO OR LOSS OF SAILS.

Damage to or loss of sails and spars, or either of them, caused by forcing a ship off the ground, or by driving her higher up the ground, for the common safety shall be made good as general average; but where a ship is afloat, no loss or damage caused to the ship, cargo, and freight, or any of them by carrying a press of sail, shall be made good as general average.

RULE VII.—DAMAGE TO ENGINES IN REFLOATING A SHIP.

Damage caused to machinery and boilers of a ship, which is ashore and in a position of peril, in endeavoring to refloat, shall be allowed in general average, when shown to have arisen from an actual intention to float the ship for the common safety at the risk of such damage.

RULE VIII.—EXPENSES LIGHTENING A SHIP WHEN ASHORE, AND CONSEQUENT DAMAGE.

When a ship is ashore and, in order to float her cargo, bunker coals, and ship's stores, or any of them are discharged the extra cost of lightening, lighter hire, and reshipping (if incurred), and the loss or damage sustained thereby, shall be admitted as general average.

RULE IX—CARGO SHIP'S MATERIALS, AND STORES BURNT FOR FUEL.

Cargo, ship's materials, and stores or any of them, necessarily burnt for fuel for the common safety at a time of peril shall be admitted as general average, when, and only when an ample supply of fuel had been provided, but the estimated quantity of coals that would have been consumed, calculated at the price current at the ship's last port of departure at the date of her leaving, shall be changed to the ship-owner and credited to the general average.

RULE X.—EXPENSES AT PORT OF REFUGE, ETC.

(*a*).—When a ship shall have entered a port or place of refuge, or shall have returned to her port or place of loading in consequence of accident, sacrifice or other extraordinary circumstances, which render that necessary for the common safety, the expenses of entering such port or place shall be admitted as general average; and when she shall have sailed thence with her original cargo, or a part of it, the corresponding expenses of leaving such port or place, consequent upon such entry or return shall likewise be admitted as general average.

(*b*).—The cost of discharging cargo from a ship, whether at port or place of loading, call or refuge, shall be admitted as general average, when the discharge was necessary for the common safety or to enable damage to the ship, caused by sacrifice or accident during the voyage, to be repaired, if the repairs were necessary for the safe prosecution of the voyage.

(*c*).—Whenever the cost of discharging cargo from a ship is admissable as general average, the cost of reloading and storing such cargo on board the said ship, together with all storage charges on such cargo, shall likewise be so admitted. But when the ship is condemned or does not proceed on her original voyage, no storage expenses incurred after the date of the ship's condemnation or of the abandonment of the voyage shall be admitted as general average.

(*d*).—If a ship under average be in a port or place at which it is practicable to repair her so as to enable her to carry on the whole cargo, and if, in order to save expenses, either she is towed thence to some other port or place of repair, or to her destination, or the cargo or a portion of it is transhipped to another ship, or otherwise forwarded, then the extra cost of such towage, transhipment and forwarding, or any of them up to the amount of extra expense saved, shall be payable by the several parties to the adventure in proportion to the extraordinary expense saved.

RULE XI.—WAGES AND MAINTENANCE OF CREW IN PORT OF REFUGE, ETC.

When a ship shall have entered or been detained in any port or place under the circumstances, or for the purpose of the repairs, mentioned rule X., the wages payable to the master, officers and crew, together with the cost of maintenance of the same, during the extra period of detention in such port or place until the ship shall or should have been made ready to proceed upon her voyage, shall be admitted as general average. But when the ship is condemned or does not proceed on her original voyage, the wages and maintenance of the master, officers and crew, incurred after the date of the ship's condemnation, or of the abandonment of the voyage, shall not be admitted as general average.

RULE XII.—DAMAGE TO CARGO IN DISCHARGING, ETC.

Damage done to, or loss of cargo necessarily caused in the act of discharging, storing, reloading and stowing shall be made good as general average, when, and only when the cost of those measures respectively is admitted as general average.

RULE XIII.—DEDUCTIONS FROM COST OF REPAIRS.

In adjusting claims for general average, repairs to be allowed in general average shall be subject to the following deductions in respect of "new for old," viz:—

In the case of iron or steel ships from date of original register, to the date of accident:—

UP TO 1 YEAR OLD. (A)—All repairs to be allowed in full, except painting or coating of bottom, from which one-third is to be deducted.

BETWEEN 1 AND 3 YEARS. (B).—One-third to be deducted off repairs to and renewal of woodwork of hull, masts and spars, furniture, upholstery, crockery, metal and glassware, also sails, rigging, ropes, and hawsers, (other than wire and chain), awnings, covers and painting, one-sixth to be deducted off wire rigging, wire ropes and wire hawsers, chain cables and chains, donkey engines, steam winches and connections, other repairs in full.

BETWEEN 3 AND 6 YEARS. (C)—Deductions as above under clause B., except that one-sixth be deducted off iron work of masts and spars and machinery (inclusive of boilers and their mountings).

BETWEEN 6 AND 10 YEARS. (D)—Deductions as above under clause C., except that one-third be deducted off iron work of masts and spars, repairs to and renewal of all machinery (inclusive of boilers and their mountings), and all hawsers, ropes, and rigging.

BETWEEN 10 AND 15 YEARS. (E).—One-third to be deducted off all repairs and renewals, except iron work of hull and cementing and chain cables, from which one-sixth to be deducted. Anchors to be allowed in full.

OVER 15 YEARS. (F.)—One-third to be deducted off all repairs and renewals. Anchors to be allowed in full. One-sixth to be deducted off chain cables.

GENERALLY (G.)—The deductions (except as to provisions and stores. Machinery and boilers) to be regulated by the age of the ship, and not the age of the particular part of her to which they apply. No painting bottom to be allowed if the bottom has not been painted within six months previous to the date of accident. No deduction to be made in respect of old material which is repaired without being replaced by new, and provisions and stores which had not been in use.

In case of wooden or composite ships:—

When a ship is under one year old from date of origina register, at the time of accident, no deduction new for old shall be made.

After that period a deduction of one-third shall be made, with the following exceptions:—

Anchors shall be allowed in full. Chain cables shall be subject to a deduction of one-sixth only.

No deduction shall be made in respect of provisions and stores which had not been in use.

Metal sheathing shall be dealt with, by allowing in full the cost of a weight equal to the gross weight of metal sheathing stripped off, minus the proceeds of the old metal. Nails, felt and labor metalling are subject to a deduction of one third.

In the case of ships generally:—

In the case of all ships. the expense of straightening bent iron work, including labor of taking out and replacing it, shall be allowed in full.

Graving dock dues, including expenses of removals, cartages, use of shears, stages, and graving dock materials shall be allowed in full.

RULE XIV.—TEMPORARY REPAIRS.

No deductions "new from old" shall be made from the cost of temporary repairs of damage allowable as general average.

RULE XV.—LOSS OF FREIGHT.

Loss of freight arising from damage to or loss of cargo shall be made good as general average either when caused by a general average act, or when the damage to or loss of cargo is so made good.

RULE XVI.—AMOUNT TO BE MADE GOOD FOR CARGO LOST OR DAMAGED BY SACRIFICE.

The amount to be made good as general average for damage to or loss which the owner of the goods sacrificed shall be the loss which the owner of the goods has sustained thereby, based on the market values at the date of the arrival of the vessel or at the termination of the adventure.

RULE XVII.—CONTRIBUTORY VALUES.

The contribution to a general average shall be made upon the actual values of the property at the termination of the adventure, to which shall be added the amount made good as general average for property sacrificed; deduction being made from the shipowner's freight and passage money at risk, of such port charges and crew's wages as would not have been incurred had the ship and cargo been totally lost at the date of the general average act or sacrifice, and have not been allowed as general average.

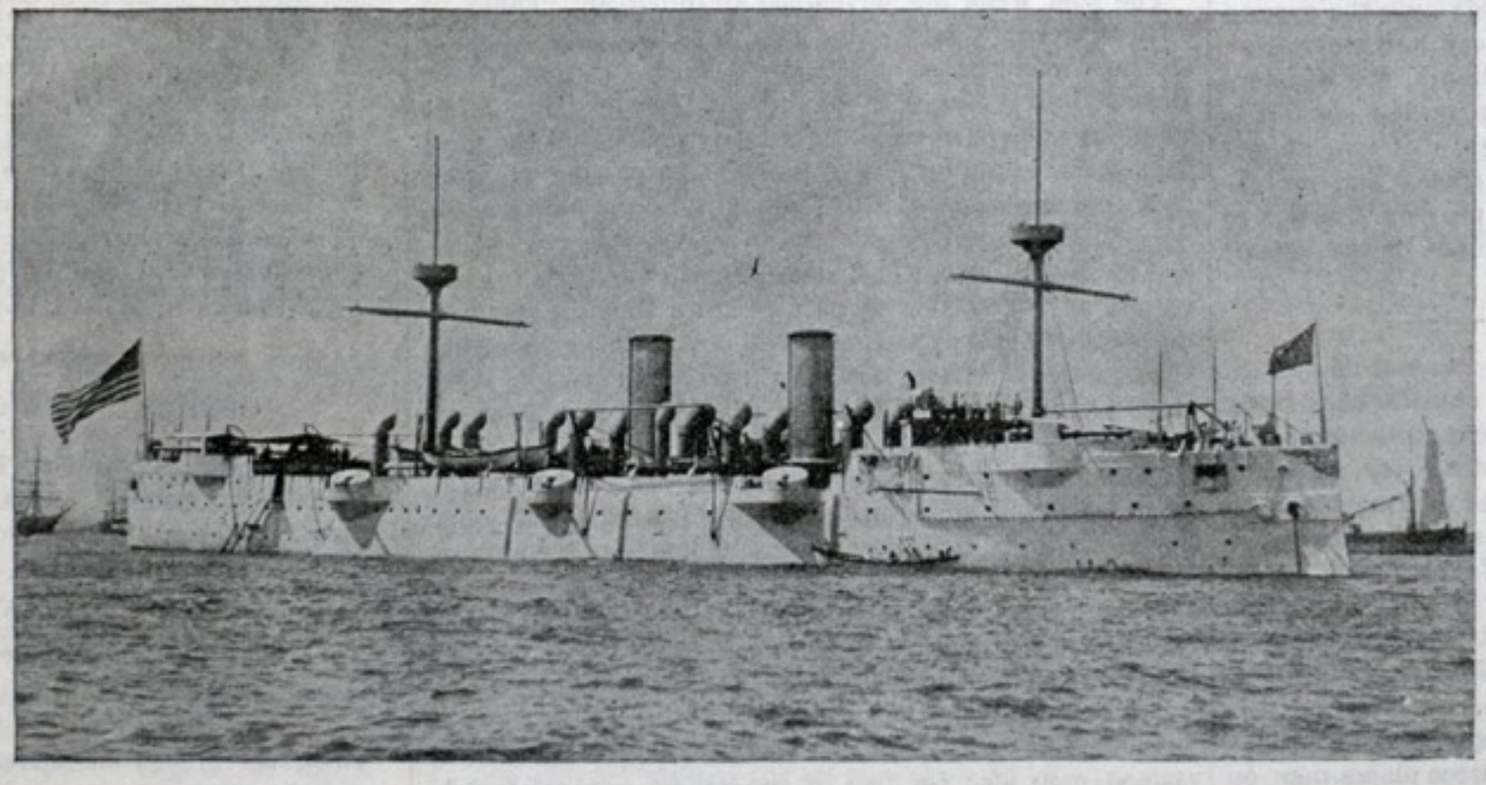
Passengers' luggage and personal effects not shipped under bill of lading, shall not contribute to general average.

RULE XVIII.—ADJUSTMENT.

Except as provided in the foregoing rules, the adjustment shall be drawn up in accordance with the law and practice that would have governed the adjustment had the contract of affrightment not contained a clause to pay general average according to these Rules.

THE CRUISER BALTIMORE.

The accompanying illustration, for which we are indebted to the "Railroad and Engineering Journal," is from a photograph of the cruiser Baltimore, one of the same general class of which the Newark, the Charleston and the Philadelphia are types, although the ship in question differs somewhat from the others in detail. She is a twin-screw, steel-protected cruiser, 335 ft. long over all, 48 ft. 6 in. beam, 19 ft. 6 in. mean draft, and 4,400 tons displacement. She was built by the William Cramp & Sons Ship and Engine Building Co. in Philadelphia.



The ship has a complete double bottom, and is divided into numerous water-tight compartments. There is a complete protective deck varying from 2½ in. to 4 in. in thickness. The engine and boiler space is completely surrounded and protected by the coal bunkers. All the guns are protected by heavy steel shields.

The ship is provided with an electric light plant, hoisting engines, ventilators and all the modern conveniences.

Each screw is driven by an independent horizontal triple-expansion engine. These engines have developed 10,750 H. P., and have given a speed of 20.2 knots. There are eight double-ended cylindrical boilers arranged in groups of four. The full coal capacity is 900 tons. giving a radius of movement of 3,400 knots at full speed, and of 12,000 knots at a 10 knot speed.

The armament consists of four 8-inch breech-loading rifles mounted on either side of the poop and forecastle; six 6-in. breech-loading rifles in sponsons on the spar deck; six 6-pdr. rapid-fire guns, six Hotchkiss revolving cannon and four Gatling guns. There are also five torpedo-tubes.

The Baltimore has done considerable cruising since she went into commission. She was the ship chosen to carry Captain Ericsson's body to Sweden. For some time past she has been on the Pacific Coast, and at latest dates was reported in Puget Sound.

The Baltimore has a heavy ram bow, and a projecting stern which covers and protects the steering apparatus. She is a very handsome ship, although it must be confessed that her general appearance is somewhat marred by the large ventilators projecting above the deck. She is a good cruiser, and is said to be a very comfortable sea boat.

U. S. SURVEY OF NIAGARA RIVER.

A survey of Niagara river has just been completed by Major Ruffner, Corps of Engineers, in charge of the Buffalo district, and the following circular of interest to those trading to Tonawanda has been issued:

"The United States sounding machine was lashed to the tug and four sounding rods were adjusted so as to show all obstructions met at a less depth than 15½ feet. The Buffalo guage read 5-10 below mean lake level at starting and the gauge at the Tonawanda bridge read the same. Consequently the soundings taken show 16 feet depth when the stage of water is that of the mean lake level.

"It was shown that the shoal at the lower end of the Horse Shoe Reef Channel, which has been worked on by the dredge since the first week of May, has been removed excepting a few loose rocks. Vessels drawing not over 15 feet on that day, or 15½ feet at mean lake level, would not have struck when on the ranges.

"It was shown that after a vessel had passed this channel she can go fully four hundred feet to the west of the Inlet Pier without striking with 16 feet draft. Vessels have a channel 400 feet wide on the western side of the Inlet Pier, and can begin to shape for that channel immediately after passing through the Horse Shoe Reef Channel. The channel to the east of the Inlet Pier is narrow and must be carefully followed and has a depth of 15½ feet at mean lake level.

"The dug channel at Strawberry Island has some loose rocks in it yet. Vessels drawing 15 feet of water would have rubbed over these on Tuesday. Vessels drawing 14¼ feet August 1, or 15 feet at mean lake level should have struck nothing from the lake to the Harbor of Tonawanda. Where dredging has been done at Tonawanda there is a full depth, 16 feet at mean lake level, excepting a few lumps left by the dredge."

RAILROAD TRANSFER FERRY STEAMERS.

Besides the large railroad transfer ferry steamer building at the yards of the Detroit Dry Dock Co. for service in the Straits of Mackinac, there is under construction at the yards of the Craig Ship Building Co., Toledo, O., a transfer steamer 260 feet long 52 feet beam and 19 feet depth of hold for service on Lake Michigan to ply between Frankfort, Mich., and Kewaunee, Wis., for the Toledo Ann Arbor & Northern Michigan railroad, and it is expected that a second steamer for the same line will also be built at a cost of about $180,000 each.

TUGBOATS CHANGE HANDS.

Henry Lay & Co., of Sandusky, have sold the tug Welcome to Williams, Upham & Daugherty, of Duluth, consideration, $12,000.

Capt. Jay Hursley, of Sault Ste. Marie, bought the tug Lorenzo Dimick, of Hand & Johnson's Line, Buffalo, N. Y. The consideration is said to be about $8,000. The Dimick was built in Buffalo in 1883, and is rated A 1½ in the Inland Lloyds, with a valuation of $8,000 Capt. Hursley is in the towing business at the Soo and owns the tugs O. W. Cheney and Mary Virginia.

AN IMPORTANT SALVAGE CASE

On the morning of Tuesday, Dec. 8, 1891, the Charles W. Wetmore, an iron screw steamer of the whaleback type, being of 1,750 tons register, 17½ feet draft, when loaded, and valued, with her cargo, at $409,219.06, while on a voyage from Philadelphia to Puget Sound, was lying four or five miles from the shore in the Pacific Ocean, a short distance south of Tillamook Rock and about thirty miles south of the Columbia River, disabled by the loss of her rudder plates.

A strong sea was running to the northwest, the result of a violent blow on the 6th and 7th of the month. An attempt had been made on the morning of the 8th to rig a drag as a jury rudder, composed of a lot of rope and chains, but it proved of no use, and she was unable to steer and was drifting slowly toward the shore in six or seven fathoms of water. The Zambesi, an iron screw steamer, of 1,654 tons register, valued at $220,000, and lightly loaded, was on a voyage from Victoria, B. C., to Portland, when she discovered the Wetmore, flying a signal of distress and bore down on her, got out a hawser and after considerable difficulty it was made fast to the Wetmore and they proceeded on to Columbia River. When some three and a half miles off McKenzie's head, an in six or seven fathoms of water, the hawser parted in the chocks of the Wetmore.

The master of the latter then sent his mate in a boat to the Zambesi for her hawser; the master of the latter offered his hawser, but the mate replied, he was ordered to get his own hawser. The people on the Zambesi then drew in the hawser, and making fast a line, passed it to the people in the boat, who carried it to the Wetmore and made it fast. Considerable time was lost in this operation, while the vessels by force of the heavy sea which was setting to the northwest, were drifting towards the shore. Before the hawser was made fast to the Wetmore, the master of the Zambesi sung out: "If you don't make that hawser fast quickly I must leave you and seek safety," to which the master of Wetmore replied: "For God's sake hold on to me, don't let me go." The Zambesi held on a few minutes longer, the hawser was made fast, and the Zambesi proceeded with the Wetmore in tow in the direction of the mouth of the river, where they took a pilot, and came over the bar and up to Astoria by nightfall.

Owing to the weight of the Wetmore and the fact that she could not be steered, but yawed from side to side, it was absolutely necessary for the Zambesi to go slowly. The tide was flood and the heavy seas traveled faster than the vessel, so that they beat upon her and swept over her all the way across the bar, thereby straining her decks, breaking in her house and otherwise injuring her and imperiling her safety. In rendering this service to the Wetmore the Zambesi did not incur any serious risk to the vessel or crew, except in crossing the bar, while the Wetmore was rescued from a position of great danger when the Zambesi took hold of her near Tillamook Rock, and preserved her from like danger until she was brought to Astoria. On the argument, counsel for the libelant claimed that the compensation should not be less than $50,000, while counsel for claimants insisted that no greater sum should be allowed than $10,000. After much consideration Judge Deady fixed the sum at $20,000—a little less than five per cent of the value of the Wetmore and cargo; and this amount was apportioned as follows: $5,000 divided equally among the crew, $5,000 to the master, $1,000 to the mates, $2,000 to the pilot, and $7,000 to the Zambesi.

ACCORDING to advices from Canada the 20 cent a ton canal toll will now be exacted from all vessels, and no rebate allowed. Thus is discrimination dispensed with!

A GREAT TRANSPORTATION LINE.

That the Great Northern Railway under the presidency of J. J. Hill means to enter the lists for trans-continental traffic, is now a foregone conclusion, and every liuk in the vast plan of tran-portation will be thoroughly connected.

The two handsome twenty mile an hour steamers now about being contracted for with the Globe Iron Works Co., will take care of the tourist and commercial travelers over the Great Lakes, and the half dozen steel steamers already making schedule time, will prove a great feeder to the railroad system.

It has been said that it would be a premature venture to place costly and speedy steamers on the line exclusively for passengers, especially as the season lasts for only about four months in the year. This assertion, however, is not borne out by figures on the transportation of passengers, and even if kept at work for only a third of the year, the boats would leave a handsome dividend each season, and if allowed to enter the Chicago trade during the World's Columbian Exposition, their earnings would no doubt nearly, if not quite cover their entire cost.

The Great Northern Railway is, perhaps, the shrewdest competitors for transportation favors and facilities that the northwest has ever encouraged, and it has been given to few men to grasp the situation in its entirety in so eminent a degree as J. J. Hill has done. It is now learned that no time is being lost by the management of the Great Northern Railway to establish itself as a competitor for Pacific coast traffic. Its line has been completed to Spokane, but it will take ten months yet to reach the coast. In view of this unavoidable delay efforts are being made to perfect a traffic arrangement with the Union Pacific whereby a through passenger service may at once be established. Sharp competition between the Great Northern and the Northern Pacific on northern transcontinental traffic would naturally be the result of such an arrangement, and it is believed that the Great Northern Railway will begin operations by announcing a reduction in both freight and passenger rates.

THE Lighthouse Board has made the following appointments for lightship No. 57, stationed at Gray's Reef, Lake Michigan: Keeper, M. S. Corlett, first assistant, Jacob Smith second assisant, Wilson Wright.

The Marine Record,

ESTABLISHED 1878.

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CLEVELAND, O., AUGUST 11, 1892.

THROUGH Congress admitting the two Atlantic Liners to change their flag from a British to an American, Wm. Cramp & Son, of Philadelphia, have received a contract for two 11,000 ton, 20 knot steamers. "Half a loaf is better than no bread," so, if the shipbuilding industry of the United States is to be fostered, even fifty per cent of this class of tonnage, built under the flag, is better than none at all, though the limits as to size, speed and other requirements should be kept up to the top notch, and no bill admitting to American registry anything less than the best Atlantic Liners ought to be tolerated by Americans.

IN a recent editcrial on the sinking, through collision, of the yacht Alva, our esteemed contemporary The *Marine Journal* avers that a vessel has no right to anchor in a fairway or channel, or in the track of vessels, even in a dense fog. Positive exception should be taken to such a standpoint, as only local harbor or quarantine regulations may dicate where a vessel should let go her anchor. Outside of port rules a vessel, either sail or steam, sailing for pleasure, profit, or under national orders, may he handled at the discretion of her officers, and should a casualty occur the wrong.doers suffer, or ought to.

ATLANTIC records are evidently only made to be broken as the White Star steamer Teutonic has just bested the 520 miles days run of the City of Paris by 8 miles. The machinery and the men who manipulate it to drive a small floating island like the Teutonic over the ground at the rate of 22 miles an hour, and keep her moving at that rate steadily throughout the 24 hours, are wonders of mechanical ability and engineering proficiency. It is now generally admitted that the progress of marine engineering is in advance of all other trades and professions, and the engineer of to-day is proving himself to be equal to the most rapid development of the arts of mechanism.

HITHERTO THE MARINE RECORD has not dealt with matters exclusively naval, nor is it considered strictly within our province so to do, yet, there is one leading subject in connection with the United States Navy, on which we have expressed strong opinions, and will continue to agitate until the question is definitely settled. Again, we ask our lawgivers what becomes of the naval A. B. after serving his country faithfully during all of his manly career? The only resource left for him, as far as we know, is cold, cheerless, charity. Nor does half a century of service entitle him to pension, retirement, or the means of ending his days without depending on others. The military arm of the national forces places men on the retired list after 30 years service, and it is a crying shame that the sister safeguard should be so ungratefully ignored.

THE unlimited gall with which a contemporary claims precedence in the discussion and final action taken by the United States relative to the Welland Canal tolls is on a par with many other groundless assertions emanating from the same source. The present status of the Welland Canal tolls question has been brought about directly through the efforts of the Lake Carriers Association and much credit is due to Mr. Charles H. Keep their efficient secretary, for his determined and well directed advocacy of the subject with a view to the re-adjustment of the tolls charged on vessels bound to United States ports. For several years past THE MARINE RECORD has faithfully and persistently shown the unfair effects of discriminating between ports via the Welland Canal route, and we still hold that reciprocal courtesies in canal traffic should be strictly maintained.

TO MANN UNITED STATES VESSELS.

A delusive opinion has been seriously entertained by those interested in the management of the two Atlantic Liners recently made eligible by Act of Congress to admission on the Registry of United States tonnage. These people have thought in their ignorance, or sublime indifference to the United States statutes, that a hocus-pocus evasion could be entered into whereby the present officers of the City of Paris and City of New York might be taken over with the vessels and the entire outfit naturalized for use by American owners.

Judging from the method pursued, we opine that the managing owners consulted the United States Commissioner of Navigation as a matter of form or afterthought, relative to this seemingly trivial and apparently unimportant matter of officers, expecting that loopholes enough existed to permit the retention of the conductors of these marine omnibusses. The result was no doubt very unexpected, as the Commissioner of Navigation ruled according to Sec. 4291, wherein it is stated, that "All the officers of vessels of the United States shall be citizens of the United States" and it is right that they should be so, nor can an alien lay claim to citizenship on declaring his intentions and taking out his first papers, as he must be a full fledged citizen before he is eligible as an officer of an American vessel.

The owners of the steamers need not feel alarmed however at this strict rendering of the law as there are United States citizens in the transatlantic trade fully competent to conduct these large steamers successfully and entitled in every way to the best commands under the flag, further than this, if the absurd restrictions placed upon engineers and deck officers serving in the lake marine were abolished, there would be no lack of steamboat officers of the highest caliber, as the few problems contained in the present system of examination by local inspectors might soon be acquired to augment a practical training and experience second to that gained in no other trade or commerce in the world.

The decision arrived at by the Commissioner of Navigation is the only one possible, and while this rendering of the statute is generally known and closely observed by the lake marine, it is a matter of congratulation that no attempt has been made to evade the spirit and intent of the law.

IRON AND STEEL SHIP-BUILDING ON THE LAKES.

The iron and steel ship-building industry on the lakes is advancing by leaps and bounds, as it were, and the contracts brought near to a close with those just signed aggregate upwards of two and a-half million dollars' worth of floating property.

The past week has developed an important change of ownership in the handsome side-wheel passenger steamers now running on the Lake Huron division of the Detroit and Cleveland Steam Navigation Co. These steamers have been taken over by a number of the most prominent vessel owners of Cleveland and they will open up a new line between Buffalo and Cleveland next season. Specifications are being got out to replace these two boats, and as the last side-wheel steamer built for the Line was valued at $300,000, it is safe to state that the two new high-classed speedy steamers will cost notning less than that amount. There are also two other twenty-knot steel passenger propellers, for which the specifications are now being closed, and from the fact that they are required to pass anything afloat on the lakes; also, to surpass in point of equipment anything ever put afloat on these waters, their cost cannot be less than the amount above stated, so that the four passenger steamers for service in 1893, and for which contracts are as good as closed, will aggregate a total cost of $1,200,000, with other interests yet to be heard from on the several lakes.

For special freight service between Buffalo and Chicago a contract for a new steamer costing $220,000 has already been signed; also for two of the largest general freight steamers on the lakes, having an overall length of nearly 380 feet, the value of which may be estimated at $225,000 each. Two ferry transfers for railroad service at a cost of $360,000, and two large schooners valued at $80,000 each, besides a steel steamer for the Lake Superior trade, on which figures are now being asked, at a probable contract price, of say $175,000, brings up the new tonnage in sight to a maximum cost of $2,565,000, and, as we have said, there are several minor contracts being talked of, though not yet sufficiently developed to come within reach this week.

THE CANAL TOLLS QUESTION AGAIN.

The *Canadian Manufacturer* is more than usually worked up on the reprisal-retaliation side of the canal tolls controversy and would seem to insist upon this feature being forced to the front. Such views should meet with the deprecation of all those who honestly desire to bring about an equitable adjustment of the present differences.

The majority of lake vessel owners are firmly convinced that an unjust discrimination has been exercised between Dominion and American ports in the matter of canal tolls, and it is their desire to see the wrong righted, amicably and through reciprocal courtesies if possible. If the Dominion must charge a toll to support the canals, then let it be one wherein no possibility of discrimination can be found to exist. The Sault Ste. Marie canal has been free and unrestricted, no matter what the season volume of Canadian tonnage or traffic amounted to, and it comes with poor grace from the discriminatory side to talk of further reprisals or continuing the wrongs to commerce. In support of the policy outlined the *Canadian Manufacturer* has the following to say:

"During the navigation season of 1891 Canadian vessels carried 314,480 tons of freight through the American canal at Sault Ste. Marie. During the same season, American vessels carried from one American port to another American port through the Welland canal 563,856 tons of freight, and besides this they carried large quantities of freight to and from Canadian ports. A tax of $2 per ton on all freight carried by American vessels through the Welland canal would considerably more than pay the proposed American tax on freight carried by Canadian vessels through the Sault Ste. Marie canal. It is a bad rule that does not work both ways."

The rule or traffic will certainly not work both ways if tolls are placed on St, Mary's Falls Canal this season, and the trend of the St. Clair canal is slightly altered for next season.

THE FREIGHT SITUATION.

Ore rates are now $1.15 from Two Harbors and Ashland, $1 from Marquette, and 80c. from Escanaba and Gladstone to Lake Erie. There has been talk of the Marquette rate stiffening a little, but offerings of Escanaba tonnage are now free at 80c., and the rate is certainly not likely to improve within a day or two, or until Chicago grain shipments are heavier. Lake Michigan coal freights are strong, and Lake Superior rates, despite the blockade of docks above are likely to hold for some weeks yet. Soft coal rates remain at 60c to Chicago and Milwaukee, and 45c. to the head of Lake Superior. Grain rates yesterday were weak at 2½c. on wheat from Chicago and 3¼c. from Duluth to Buffalo.

THE LIGHT-HOUSE BOARD.

The Light-House Board of the United States is organized in conformity to an act of Congress approved August 31, 1852. The list of members on July 1, 1891, since which time there has been no change, are as follows: Hon. Charles Foster, Secretary of the Treasury, *ex-officio*, president; Commodore James A. Greer, U. S. Navy; Prof. Thomas C. Mendenhall, Superintendent of the U. S. Coast and Geodetic Survey; Brig. Gen. Thomas L. Casey, Chief of Engineers U. S. Army; Mr. Walter S. Franklin, Capt. Henry L. Howison, U. S. Navy; Col. William P. Craighill, Corps of Engineers U. S. Army; Commander George W. Coffin, U. S. Navy; Capt. Frederick A. Mahan, Corps of Engineers U. S. Army.

The executive members of the Board are: Chairman, Commodore James A. Greer, U. S. Navy; naval secretary, Commodore George W. Coffin, U. S. Navy; engineer secretary, Capt. Frederick A. Mahan, Corps of Engineers U. S. Army.

OFFICIAL NUMBERS ASSIGNED.

The Bureau of Navigation, Treasury Department, Washington, D. C., assigned official numbers during the week ending August 6th, to the steamers, City of Naples, 1773 net tons, hailing from Port Huron, Mich.; Chicora, 708 net tons, Detroit, Mich., and the Buena, 11 net tons, Chicago, Ill.

TRAFFIC THROUGH ST. MARY'S FALLS CANAL

The traffic through the St. Mary's Falls Canal for the month ending July 31st. 1892, is as follows: Eastbound—Flour, 792, 289 barrels; corn, 279,941 bushels; wheat, 4,556, 785 bushels building stone, 5,393 tons; copper, 10,913 tons; iron ore, 932, 706 tons; pig iron, 4,162 tons; lumber, 72,234 M. feet; silver ore, 100 tons; unclassified freight, 22,304 tons; passengers, 3,319. Westbound—Coal, 542,003 tons; flour, 110 barrels; grain, 8,890 bushels; manufactured iron, 4,833 tons; salt, 25,767 barrels; unclassified freight, 49,554 tons; passengers, 3,425. The total east and westbound freight was 1,926,210 net tons; passengers, 6,744.

A LIGHT DRAFT PORT.

Special Correspondence to The Marine Record.

PORT ARTHUR, ONT—The steamer Monarch of the Beatty, N. W. T. Co., grounded heavily last Sunday at the mouth of the notorious Kaministiquia River, probably better known as Fort William. Until some dredging is done and the approach deepened vessels need not expect to get clear of groundings and this should be kept in mind when chartering.

(*Continued from page five.*)

of union men along the lumber market. Our sailors have been persecuted a great deal in that locality, and we think most of this will be avoided by getting the shipping office away from there. We are also handier to the depots, when men are sent here from the seaboard."

Shipping master Biemel, of the Lake Carriers' Association, has been incapacitated from attending to his duties for several weeks by a bad attack of inflammatory rheumatism. He is improving.

The whaleback steamer. Samuel Mather,'did not break the record for big grain cargoes Monday. Every nook under her round deck was filled when she had taken 116,000 bushels of corn on board. She then drew fifteen feet five inches. With wheat it is thought she could have loaded 120,000 bushels. Her consort, barge 105, carried 105,000 bushels of wheat. WILLIAMS.

BUFFALO, N. Y.

Special Correspondence to The Marine Record.

The W. H. Arthur Paint Co. are enjoying a well-earned marine patronage. Their store at the foot of Main street has excellent dock facilities, and prompt attention is given all vessel orders. The late W. H. Arthur established the business, and the present firm retain the name and prestige gained by its founder.

The Buffalo "Courier" was kind enough to "roast" your correspondent last Sunday regarding the note sent to the RECORD last week, which stated that Capt. Newman, of the Niagara, saved the lives of three sailors whose yacht was capsized, and that the accident was in plain sight of the life-saving station, and but a few hundred yards distant from it. The "Courier" said:

"This aroused Capt. D. P. Dobbins, and caused him to examine into the correspondent's allegations. He has done so, and pronounces the whole a fabrication. No member of the local Life Saving Crew saw any kind of a boat capsize, and Capt. Newman says he neither knew of any or picked up any drowning men—soldiers or civilians."

Capt. Dobbins was certainly talking at random if he made any such statement, and Capt. Newman has said nothing except what he told your correspondent. The accident did occur within plain sight of the life-saving station, and if it is true, as Capt. Dobbins says, that the capsized boat was not seen by any one at the life-saving station, the credit due the local crew for watchfulness will not very soon cover them with gold medals. The "Courier" found out its mistake, and on Tuesday corrected Capt. Dobbin's statement.

Since last week's RECORD reached Buffalo, it is said members of the life-saving station can be seen at any time pacing the wall of the breakwater with a spy-glass in each hand, looking for capsized yachts.

Four big package freight carrier's of the Union Steamboat and Lehigh Valley lines have left light for Chicago within the week. This is an unusual occurrence. I also note that the Canadian schooner Mary, loaded a full cargo of American wheat last week at the Niagara elevator, for shipment to St. Catherines, Ont. This is another unusual record.

Messrs. Sloan, Cowles & Sloan will next winter build a wooden excursion steamer to be called the Puritan. She will be about 120 feet long, and 30 feet beam. The cost will be about $30,000. The small steamer Eldorado, which this firm is building for their own business, will be launched inside of two weeks.

The steamer Columbia one day last week ran to Dunkirk, a distance of 40 miles, in 2 hours 19 minutes, an average of over 16 miles an hour.

The tug L. Dimick, of Hand & Johnson's line, was last week sold to Capt. J. Hursley, of Sault Ste. Marie, for about $8,000. The Dimick left for her new station last Saturday. Hand & Johnson's new tug, which has been named the Cascade, will be out next week.

The schooner G. G. Houghton was short 121 bushels on a wheat cargo from Toledo. The vessel unloaded at Hefford's "Black Diamond" coal elevator.

Coal freights are firm at last week's figures, with only a fair amount of business doing. Canal freights are higher and stronger, ruling on a basis of 2½ cents for wheat to New York.

It is now considered an assured fact that the Union Line will build two large steel steamers at this port during the coming winter. If so, the Union Dry Dock Co. will also have all the work that they may care to attend to.

DETROIT, MICH.

Special Correspondence to The Marine Record.

The steamer Wm. Edwards, Captain Wm. W. Collins, while passing here with the Golden Age and C. Foster in tow grounded on the shoal lying about 500 feet from the lower end of the Michigan Central depot. Evidently this middle ground is making and deep draft vessels should avoid it until the bank is marked or dredged, which ought to be done at the earliest possible time.

The work of raising the sunken steamer Progress is going on satisfactorily, she has now been moved to shoal water and it is expected that she will be ready for dry dock during the course of a week or ten days, no slip will be allowed to take place between where she now is and the shipyard.

The Detroit Dry Dock Co., have been awarded the contract to build a large steel freight package steamer for the New York Central Railroad Co., at a cost of $220,000. The Hudson and Harlem built here for the same Line has given such excellent satisfaction that the new boat will be on similar lines, only larger, and fitted with every known appliance and equipment to facilitate the handling of ship and cargo.

The "Evening News" has the following to say on the canal tolls question: "Canada's action in rescinding the order in council which provided for a rebate system that put the Canadian vesselmen to unfair competition with American shipowners in the St. Lawrence river is a much more sensible outcome of the Canadian-American differences than any retaliatory acts would have been. The Canadians were clearly outside the engagements of the treaty when they made such discrimination against our vessel owners, and the application of the same rule to their floating property on the part of our government would come too near the bankruptcy of the Canadian lake merchant marine for our neighbors to take any chances on it. How badly the retaliation act advocated by President Harrison and given immediate effect by Congress hurt the Canadian national spirit was apparent from the chimerical schemes proposed for counter-retaliation, such as the draining of the lower lakes and the construction of the Humber river and Georgian bay ship canal. None of these methods, even if feasible, was necessary to the situation. All the Americans asked was to be treated as well as they treat the Canadians, and that is the sensible course that the Canadians have adopted.

The regatta has been the excitement of the week on the river. The Crusader won in the first class, Alice Enright in the second class, the Shamrock in the third, Ugo in the fourth, Cyclone in the fifth and the Corsar, Jr., in the sixth class. 45 yachts entered the lists and the Enright made the best time over the course.

For some time past negotiations have been pending for the sale of the steamers City of Mackinaw and the City of Alpena to a syndicate of Cleveland capitalists and the deal is now completed. The consideration named is $275,000. The intention of the new Cleveland company is to establish a daily route between Cleveland and Buffalo. T. F. Newman, agent of the Detroit & Cleveland Line, will manage the Cleveland-Buffalo Line. They will not begin on this new route until next season, the D. & C. Line retaining possession until the close of this season's business. It is also proposed to lengthen the route of the Lake Huron division to take in Toledo on the south and Petoskey on the north. The City of Mackinac and City of Alpena are fast steamers, their average speed being 16 miles an hour. Plans are now being got out by Frank E. Kirby for two new boats to cost $250,000 each. They will be built by June 1 next. Their hulls will be of steel, and they will be the fastest and best equipped vessels that ever ran on Lake Huron. They will be about 265 feet over all, and will have a guaranteed speed of 20 miles an hour.

D. Whitney, Jr., the well-known vesselowner of this port, has just placed a contract with F. W. Wheeler & Co., West Bay City, for a sister ship to the one recently ordered by the Hawgood & Avery Transit Co., of Cleveland. These will be the two largest steel steamers on the lakes. Colin McLachlan, of Port Huron, owner of the Kittie M. Forbes and other floating property has also placed a contract with Wheeler for a large schooner. Mr. McLachlan figured last winter on having a whaleback tow barge built, though why he switched off I have been unable to learn.

The large wooden steamer Neshoto, aground at Grosse Point for two days was pulled off by the Grummond Line wrecking tug early Wednesday morning.

The D. & C. Line., steamer City of Mackinaw, on the Lake Huron division, left this port on Wednesday with 350 passengers for upper lake points, this with a valuable freight list may be called fair business and the lake passenger trade is still in its initial movement.

A NEW HART LINE STEAMER TO BE BUILT.

Special Correspondence to The Marine Record.

ESCANABA, MICH.—There is not the least doubt but that the fine steel steamer Maryland, Capt Yax, will yet find the carrying capacity of this noted flag ship. On Monday last she took from this port 3,653 gross tons (4,091 net tons) consigned to the Illinois Steel Co. at South Chicago. This cargo, which is by long odds the heaviest one yet carried on the lakes, was loaded in a draft of 17 feet 4 inches, and should there ever admit of a heavier draft at South Chicago, the Maryland will swell the figures in excess of the four thousand mark, and here I will say, what a boom to the carrying business it would be, if there was a depth of water at all wharves and in all harbors that was equal to the depth here, and even then the government has never expended one dollar towards improving this harbor, simply because it never has, nor will it probably ever require any expenditure to keep it what it is, one of the best.

It seems probable that in the case of the schooner Baldwin, which was abandoned by the crew in Lake Michigan last fall, and subsequently picked up by Booth's tug, that the evidence given by Capt. Bartley and Arthur Leighton will tend toward making the case a rather peculiar one, and hardly will it prove anything but interesting to the owners and the shipper. It will, however, prove a big feature if they win, for they are today engaged in a fight that is watched with great interest to every vessel and insurance man in the lake trade.

The little steamer Truscott was sold at Marshal's sale Monday for three hundred dollars. She will be fitted and will go in the cedar towing business across the Bay.

The steamer Nellie took a pleasant party of our old and young folks up the bay last week for a day's outing and they had a most enjoyable excursion. Capt. Marsh, of the steamer Ohio, very pleasantly entertained about twenty of our young folks on his steamer Monday evening.

The Western Reserve may be accredited with carrying the heaviest cargo recorded as taken through the rivers. She took from Escanaba to Ashtabula 3,717 tons of iron ore. As soon as the big steamer Maritana is completed we will, no doubt, hear of 4,500 tons being transported in one cargo from Escanaba to South Chicago. She is expected to do this feat on a draft of seventeen feet, six inches.

I have learned from reliable authority that the Hart line of steamers will be extended next season through to Cleveland. It is now proposed to build next winter a much larger and finer craft than either of the present boats. This new craft will run in connection with the Fannie C. Hart between Green Bay and Cleveland, stopping at all the intermediate points of interest, and the C. W. Moore, (now on the Sturgeon Bay-Menominee route, and Eugene C. Hart will take the Green Bay-Cheboygan route whilst the steamer Welcome will take the present route of the Moore. The Hart Bros. commenced this business only a few years ago with the Fannie C., and through persistent effort and efficient management they have added the remaining three craft, forming as pleasant and profitable a business as can be found in the passenger line. Success to such enterprise! Another instance of this kind is that of Hannah Lay & Co.'s steamer City of Grand Rapids. With but gloomy prospects they placed this fine passenger boat on the Traverse City, Escanaba and Gladstone route, and though new routes invariably call for a considerable amount of cold cash, they have "stayed by her," and today it may be said she has a pleasant business and about all she can handle. She makes this port three times each week (on time too), and with the re-opening of fruit and general produce it is doubtful whether she can handle all that comes her way, but, if such proves the case, the company have stated they are prepared to promptly meet the demand with another craft, thus making a daily line. Making direct connections with railroads on each side, as she does, a glance at the topography of the country will show the observer that not only does she save the through traveller twelve hours' time, but she also saves him about one hundred and forty miles of travel, and seven of his dollars.

The lighthouse tender Dahlia has been in this port for a few days looking after Government interests. As they relate to "aids to navigation."

THE MARINE RECORD man will, this week, make a trip or two as circumstances may require, to the port of Gladstone in the interests of the lake marine in general, and it is hoped that the interests of that port will fully warrant the continuance of his regular visits. UNO.

FLOTSAM, JETSAM AND LAGAN.

The steamer Taylor, owned by the late Isle Royale Exploration Co, which has been lying at Duluth all season, has been sold to Grand Haven parties for $7,500. She will be used in the passenger business at Grand Haven, Mich.

F. W. Wheeler & Co., West Bay City ship builders, find it too expensive to ship the anchors, chains, etc., which go with the lightships they are building for service on the Atlantic, by rail to Montreal, and yet when they are loaded upon the lightships the vessels draw too much water for the St. Lawrence canals. The company has therefore decided to try the experiment of using canvas air bags under decks to make the boats draw less water in the canals, to balloon them up as it were.

The owners of the barge Oliver Jeannette, of the Smith Transportation Co., Friday, caused a libel to be filed against the coal cargo recently delivered at Milwaukee by that vessel for W. M. Brigham & Co. The vessel was detained in port one week, and the demurrage claim amounts to $550.

The new vessel which the Deroitt Drydock Co. has contracted to build for the New York Central is to be 300 feet long, 41½ feet beam and 23 feet depth of hold.

We have received from the Vandalia or Diamond V Line a handsome pamphlet on the beauties of Lake Michigan touring, and, of course, holding that the St. Joseph and Lake Michigan Transportation Co. offer every advantage to the excursionist. The Ossifrage, Lora and Soo City comprise the line between Milwaukee, Chicago and St. Joseph and Benton Harbor, and as the steamers make excellent railroad conections and are managed by efficient caterers to the traveling public, the best possible enjoyment at economical rates must be obtained by traveling on the Vandalia Line steamers on Lake Michigan.

A Chicago wrecking expedition has reached Toledo, O., and chartered the tug Schenck to locate the schooner Favorite, which foundered off Monroe thirty-five years ago. The Favorite had a cargo of whisky and wine, which has become valuable on account of its old age, if it can be found. Several previous expeditions have failed to locate her. This one. Well!

The excursion steamer Nebraska, is still in the hands of the United States marshall at Milwaukee.

The tug Dowling, Capt. John Moiles, passed through the Hay Lake channel last week drawing nine feet of water. She had no difficulty at the cut at the upper end near Little Rapids.

STATISTICS OF THE TONNAGE OF ALL NATIONS.

The following returns compiled by "Lloyd's Register of British and Foreign Shipping" shows the entire tonnage owned by the principal maritime nations, as reported up to June 30th, 1892, though not including vessels of less than 100 tons. The tonnage given is gross for steam vessels and net for sailing vessels:

National.	Sailing Vessels.		Steam Vessels.			Total Steam and Sail.	
Flag.	No.	Net tons.	No.	Net.	Gross.	No.	Total tons
United Kingdom..	3,342	2,417,985	5,756	5,112,683	8,167,762	9,098	10,585,747
British Colonies...	1,969	857,096	839	297,976	485,781	2,808	1,342,877
United States.....	2,897	1,356,000	460	411,080	587,442	3,357	1,943,442
Austro-Hungarian	218	108,792				349	265,980
Danish.....	587	126,461	231	104.628	169,483	818	295,944
Dutch.....	352	154,203				533	401,273
French.....	803	234,152	542	503.791	848,522	1,345	1,082,674
German.....	1,058	623,547	806	722,521	1,054,899	1,864	1,678.446
Italian.....	1,357	524,234	217	192,296	303,924	1,574	828,158
Norwegian.....	2,921	1,360,241	473	217,508	305,236	3,394	1,665,477
Russian.....	934	268,223	239	107,609	158,542	1,173	426,765
Spanish.....	478	116,118	390	275,817	423,254	868	539.372
Swedish	961	283,238	491	142,102	189,863	1,452	473,101

BOARD OF ARBITRATION FOR LAKE SALVAGE AND COLLISION CASES.

The question of forming a board of arbitrators to award adequate compensation for salvage services on the lakes was spoken of in the last issue of the RECORD, and the advantages of keeping such cases out of the Federal Courts is certainly preferable to the present system of long drawn out litigation.

It is now thought that collision cases might also be adjudicated by lake insurance companies in a righteous and economical manner, and a movement is on foot among marine insurance agents at Chicago to form an arbitration board before which collision cases can be tried. In several recent instances the attorney's fees which the companies have been called upon to pay have been so heavy that it is felt that an easier and less expensive way could be found and better results obtained.

Capt. C. W. Elhpicke when consulted upon this subject said: "There is no reason why the insurance agents cannot come together and hear the testimony in these cases. We certainly know more about the management of boats than most judges on the bench, and we could get at facts fully as well. The board of arbitrators will pass on the case, and the insurance companies would then pay the bill without the enormous expense attending these collision cases. The way it is now, as soon as there is a collision everybody rushes for a lawyer, and if the case is big enough nearly every marine lawyer on the lakes is engaged in it on one side or the other. If both boats are insured the underwriters pay the lawyers as well as the losses. In the end these losses even themselves up between the various companies which then would have saved all attorneys' fees and expenses of litigation."

What has brought the question to the front just now are the very heavy bills which the underwriters have paid growing out of the recent heavy collisions, notably: Pontiac Athabasca collision in St. Mary's River last season. It is practically agreed that in the next collision case the agents will try the plan of arbitration and see how it works. If successful, then it is likely to be generally adopted in lake underwriting.

A COMPLIMENTARY RECOGNITION.

To The Marine Record.

The marvelous increase in facilities for illustrating anything and everything in the press of to-day, is almost daily brought to the attention of the reading masses. I use the word masses because owing to cheap postage, rapid transit and the great return that one receives not alone in mass but class of matter in the paper of to-day for his money, it is not a class or any number of them that read papers, but the entire people of the country so that the word class as applied to any newspaper is rapidly becoming a misnomer, certainly it is as applied to a paper such as THE MARINE RECORD which I run across at almost every turn in the roads of commerce trod by me in my fields of labor; as I find it not only bought and read by those closely allied to the marine interests but by a world of people in touch with said interests, this I think is wholly due to your always earnest efforts to make it the peer of all its competitors. Among your noticeable efforts in this direction and one crowned by success if one may judge by the almost universal sentiment he hears expressed are your large supplements of recent issue. The recent supplement showing the steamer Samuel Mitchell is when seen at a slight distance a work of art indeed and hung up here and there as I have already seen it is a great advertisement for your paper and also for the Globe Iron Works Co., as well as the owners of the steamer.

HARVEY C. BEESON.

"YES," explained the admiral to the reporter, "we have to teach the boatswain, the midshipman and the sailors. Why even the ropes have to be taut."—[Ex.

WHIPPLE & WINEMAN have purchased the barge Tokio from the Schlesinger syndicate of Milwaukee. The Tokio has a carrying capacity of 2,200 tons and is valued at $72,000.

M. E. B. A.

"In March last we published an article on the short-handed crews of lake marine vessels, and accompanied it by a view of the triple expansion engine, which showed the actual work required of two men in an engine room of a lake steamer. This article was entitled "One Man's Work," and excited a great deal of attention and some adverse criticism, the latter chiefly from those hit by the article. Bro. S. H. Hunter undertook to answer the article at the request of the conductor of a lake paper, but the matter he furnished was so garbled, muddled, and rewritten by the editors of the paper aforesaid, that it misrepresented Bro. Hunter and placed him in a bad light before the M. E. B. A. all round the lakes. We have only learned these facts recently, and state them that all may know the true inwardness of Bro. Hunter's communication. We regret that the explanation was not made earlier."—[The "Engineer," New York.

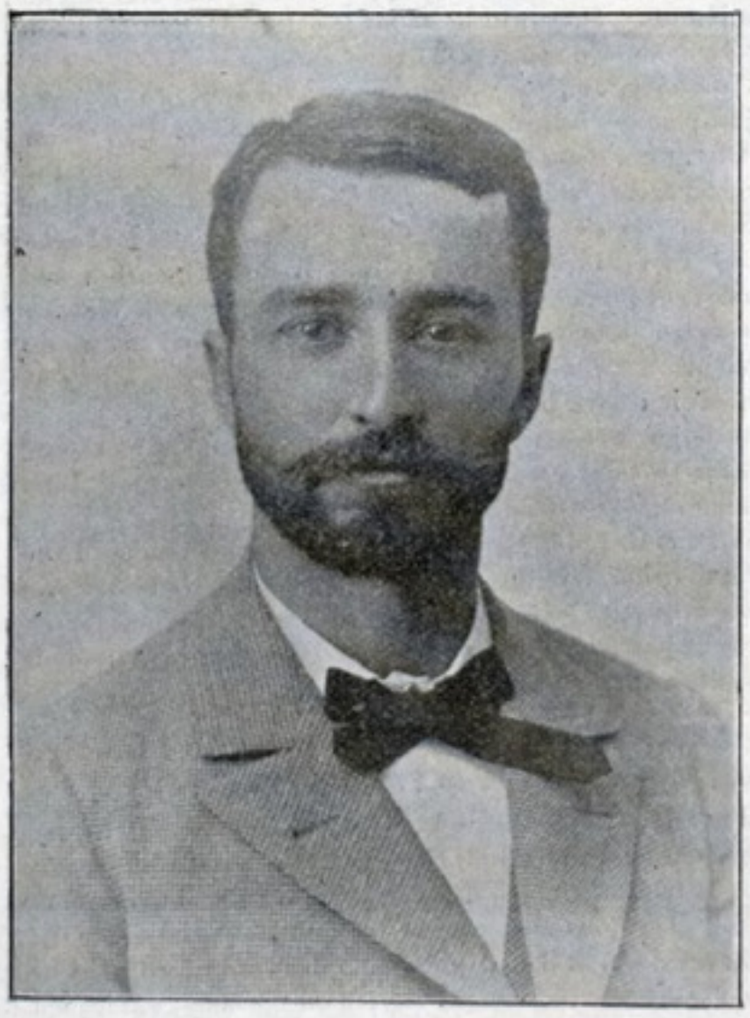
The light that has recently dawned upon Mr. Egbert P. Watson, editor of the "Engineer, has been an open secret on the lakes for "Ay these many moons." There is one point, however, on which our esteemed contemporary might have been more explicit. The major portion of the sailing community are under the impression that THE MARINE RECORD, after weathering the journalistic storms of fifteen years, is still the only marine paper published on the Great Lakes, and as the above was the production of the "conductor" of an infantile growth, the RECORD repudiates even a semblance of responsibility for the utterances.—[Ed.

A RISING LAKE SHIPBUILDER.

The accompanying portrait is an excellent representation of Mr. George L. Craig vice-president and general superintendent of the Craig Shipbuilding Co.

As the older members of the lake shipbuilding fraternity are dropping out one by one it is well that the marine public should keep posted on who the men are that will be likely to come to the front in the next few years.

The subject of this brief sketch was born in New York city in 1864 and two years later was taken west with his family where his father entered into partnership with R. W. Linn,



GEORGE L. CRAIG.

at Trenton, Mich., the firm name being Linn & Craig, shipbuilders.

Mr. George L. Craig, received his education when a youth at Detroit after which he took a course of elementary shipbuilding and draughting at one of the best institutions in the country, he then entered the shipyard and commenced his practical training at the bottom rung of the ladder.

When the firm of Linn & Craig dissolved partnership, Mr. George L. Craig became a partner with his father under the firm name of John Craig & Son, at Trenton, Mich., and when the firm was incorporated as the Craig Ship Building Co., the works were removed to Toledo, O., where an extensive iron, steel and wooden shipbuilding plant was established with Mr. Craig as vice-president and general superintendent a position he has filled with success and profit to the company.

The Craig Ship Building Co., has now been in Toledo for three years, during which time some fifteen vessels of various build and dimensions have been put afloat, all of which have given excellent satisfaction to their owners and builders.

The freight steamer J. W. Moore although only 240 feet keel length, has carried 96,500 bushels of corn on a fifteen feet draft, a record not held by any other boat of her dimensions.

In manner Mr. Craig is affable and gentlemanly and while it may fairly be stated that he now holds the most responsible position of any man of his age in the lake shipbuilding industry he is well qualified to take a still more prominent interest in the iron and steel shipbuilding of the lakes, besides his practical training, the elements of a successful business man and shrewd financier is apparent in all the dealings of this now well known Toledo shipbuilding firm.

Notes.

COMPLAINTS are made in several districts about the star chamber investigation methods of steamboat inspectors. Well how else would you have them act? Would you have them convict themselves out of their own mouths? They are very human and like punishment no better than any other men, and that they are to blame for some steamboat accidents is beyond doubt. The right to investigate such accidents should be taken away from them.—[Maritime Register.

AND now it is learned that the managers in Boston of the company owning the steamer H. F. Dimock endeavored to conceal the circumstances of the collision between that vessel and the yacht Alva, which leads a New York contemporary to remark: "Such a stupid proceeding seems hardly credible, It is difficult to imagine what gain would come of such a course. There are no doubt cases of casualties where an attempt is made to conceal them from fear of ulterior bad consequences to the vessels involved, but the wisdom of such a plan is not evident. Where insurance is at stake the facts must come out. When we get the Wreck Inquiry Courts established it will be difficult to conceal cases. In any event it is better for all concerned that there should be no concealment.

THE sunken rock or reef off Waugoschance, recently marked and located by Commander Nicol Ludlow, cost the steamer Roswell P. Flower a $20,000 repair bill in Buffalo last week. The Flower is owned by the Milwaukee Steamship Co., and in charge of Capt. C. M. Davis, who very modestly states that it is a most expensive method of surveying, and that if outlying obstructions can only be discovered by large vessels striking on them the sooner "obsolete" is written across the face of U. S. lake survey charts the better, as then private enterprise would step in and publish a reliable contour of the bottom.

HANDSOME steam yachts are already reaching the lakes from the coast, and after a summer's cruise they will winter at Chicago so as to be ready for the early opening of the Columbian Exposition. The steam yacht Peerless, hailing from New York, and the Lurline, belonging to the New York Yacht Club, also several smaller craft having arrived within the past two weeks.

A NAVAL writer in *Iron* contends that the use of aluminum in the construction of sailing yachts offers great advantages over the employment of wood and iron. Boats built of aluminum possess, he says, considerable greater stability than those constructed of the usual materials. He especially recommends the metal where vessels of fine lines and light draft, developing great speed, are required. Estimating the price of a wooden or iron yacht of ten tons at £420, the same vessel, built of aluminum would, this authority calculates, cost about £1,050. But the hull of the last named boat would, he argues, be as good as ever at the end of ten years, while the constructive materials of the wooden or iron vessel would be much deteriorated.

"ENGINEER" sends to the New York *Herald* a demonstration to show that instead of a coal endurance of 109 days with a steaming radius of 26,000 knots the new cruiser Columbia can only steam 40 days and 10,000 miles. He says: "Twenty thousand tons for 100 days will allow a daily coal consumption of only nineteen tons a day. At the least four tons a day will be required for auxiliary purposes, such as distilling, dynamo, ventilating, steering, hoisting engines and pumps, leaving but fifteen tons a day for propulsion, and it is claimed that this 15 tons will be sufficient to propel a ship of nearly 8,000 tons' displacement for one day at a speed of 10 knots an hour." The Philadelphia requires 35 tons of coal per day to propel her 4,300 tons 10 knots an hour, and this writer estimates that it will require 50 tons a day to give the 7,500 tons of the Columbia an equal speed. This, with 2,000 tons of coal, gives 40 days and 10,000 miles. *Engineer* says: "The Columbia will be a magnificent ship, the highest of her type ever built anywhere, but if such assumptions are allowed to go uncorrected she will unquestionably prove very disappointing in respect to her steaming radius.

THE pilot chart of the North Atlantic Ocean for the month of August, published at the U. S. Hydrographic Office, Washington, D. C., is on hand with its usual valuable information, and fulfilling the best interests of the service for which it is regularly compiled. The chart received at this office is always closely scanned, and there are dozens of applications for same after the editorial overhauling is gone through with.

A MACHINE for holystoning a vessel's deck has been invented and was illustrated in a recent number of the "Scientific American." The lake marine are to be congratulated on getting clear of this devotional exercise. Holystoning being unknown on fresh water and regarded in the light of an ancient atrocity

PROPOSALS.

UNITED STATES ENGINEER OFFICE, 366 Milwaukee street, Milwaukee, Wis., August 4, 1892.—Sealed proposals for improving Kewaunee Harbor, Wis., by the construction of 550 feet more or less, of Pile Pier, will be received at this office until 12 o'clock noon August 20, 1892, and then publicly opened. Specifications, blank forms and all available information will be furnished on application to this office. JAMES F. GREGORY, Major of Engineers, U. S. A. 8-11

UNITED STATES ENGINEER OFFICE, room 9 >, 134 Van Buren street, Chicago, Ill., August 6, 1892. Sealed proposals in triplicate for constructing three miles or less of the trunk of the Illinois and Mississippi canal near the mouth of Rock River; for screening, sorting and delivering sand and pebbles, and for excavating the lock pits, and constructing the foundations for two locks, will be received at this office until 12 noon, central time, Saturday, August 27, 1892, and then publicly opened. Specifications, blank forms, and all available information will be furnished on application to this office or to the office of assistant engineer, L. L. Wheeler, at Milan, Ill. W. L. MARSHALL, Captain, Corps of Engineers, U. S. A. 8-11 25

ARMY BUILDING, WHITEHALL-ST., New York City, July 26th, 1892. Sealed proposals, in duplicate, for the purchase of the side-wheel steamer Chester A. Arthur, will be received here until 12 o'clock, M. August 31st., 1892, and then opened The vessel is in good condition and is sold because her services are no longer required. She is 124 feet long on deck, overall; 42 feet in width, over all; width of hull, 24 feet from outside to outside; tonnage about 178; draft about 7½ feet. Has passenger saloon 25 feet long by 12 feet wide, 8 feet wide aft. One stateroom. Lower cabin fitted up with berths. Machinery is in good condition, and boat is ready for immediate and continuous service. She was practically rebuilt in 1887, and new boilers were put in the year before. Terms cash on delivery of the boat. Each bid must be accompanied by a certified check equal to ten per centum of the amount of the bid. She can now be seen at wharf foot of Van Dyke street, South Brooklyn. The Government reserves the right to reject any or all proposals. Proposals must be endorsed "proposal for purchase of steamer Chester A. Arthur," and addressed to Alex. J. Perry, Assistant Quartermaster General, U. S. Army. 8-11

MORE NEW TONNAGE.

A special from West Bay City states that F. W. Wheeler & Co. have just closed a contract for a duplicate of the steel steamer recently ordered by Hawgood & Avery, with the general dimensions of 380 by 45 by 25 feet. The contract was closed also for a schooner of 250 foot keel, 41 feet beam and 18 feet deep. Mr. Wheeler declines to state for whom the new boats are to be built.

Capt. James Davidson will begin laying the keel for a schooner 210 feet long, 35 feet beam and 18 feet deep, a sister ship of the two now under way in the yard. This makes the seventh boat built by him the present season, three steamers, three schooners and a barge. They will all be managed by the Davidson Transportation Co.

It is also on the boards that the D. & C. Line will build two large passenger steamers to take the place of two of their side-wheel steamers which will be run in a new company between Buffalo and Cleveland, though it is rather early to count on these contracts yet. Certainly the World's Fair year will see a complete revolution in the steamboat passenger trade of the Great Lakes.

WE call the attention of our readers to the advertisement in the column of "Proposals," on page 11, where bids are asked for the U. S. steamer Chester A. Arthur, now lying at South Brooklyn.

WALTER F. COBB, Vice-President and Treasurer.

W. I. BABCOCK, Manager.
O. R. SINCLAIR, Secretary and Asst. Treas.

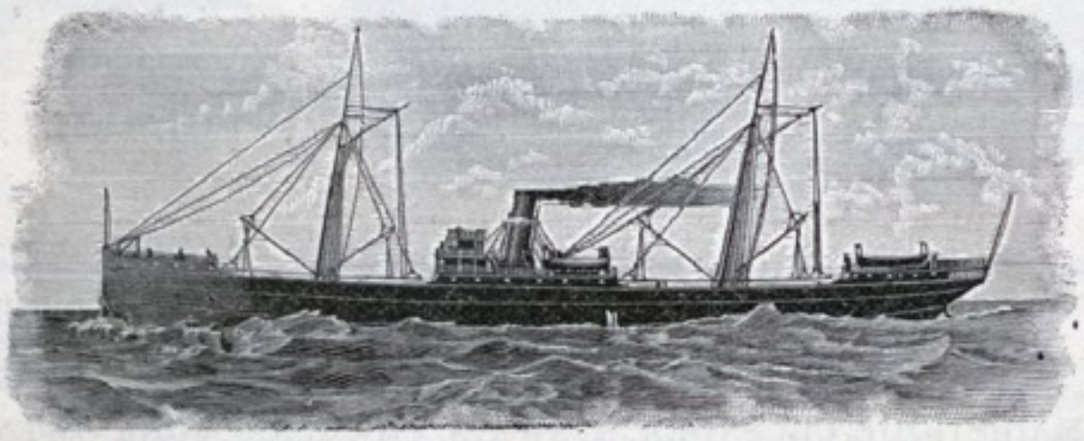
Chicago Ship Building Company,

STEEL STEAM-SHIP BUILDERS.

101st Street and Calumet River, COLEHOUR, ILL

D&C Steamer City of Detroit
Daily at 8:30 A.M. to PUT-IN-BAY & RETURN $1.
Meals. Refreshments, Brass and String Music.
Evening Lake Rides every
MONDAY & SATURDAY, 8 P.M.
FROM SUPERIOR ST, WHARF.
SATURDAY NIGHT EXCURSIONS to DETROIT
From June 5 to October 1,
GIVING A FULL DAY IN THAT BEAUTIFUL CITY.
FARE $2.25 ROUND TRIP.
WHARF 23 RIVER STREET.
A. A. SHANTZ, G. P. A. T. F. NEWMAN, G. A.
E. T. HOWELL, City Pass. Agt.

F. W. WHEELER & COMPANY.,



BUILDERS OF ALL KINDS OF
IRON, STEEL AND WOODEN SHIPS,
FOR LAKE OR OCEAN SERVICE.
West Bay City, Mich.

F. W. WHEELER, Prest. E. T. CARRINGTON, Vice-Prest.
F. L. GILBERT, Secretary.

INCORPORATED 1794.

Insurance Company of North America.

CAPITAL, Paid up in Cash, - - $3,000,000.00
ASSETS, - - - - - - 9,273,220.00

CHARLES PLATT, President. WILLIAM A PLATT, Vice-President.
EUGENE L. ELLISON, 2nd Vice-President. GREVILLE E FRYER, Sec'y & Treas.
JOHN H. ATWOOD, Assistant Secretary.

Lake Marine Department.

GEORGE L. McCURDY, Manager,
CHICAGO, ILLS.

ORGANIZED 1881.

Michigan Fire and Marine Insurance Co.,

CAPITAL,	- - -	$ 400,000
ASSETS,	- - - -	900,000
LOSSES PAID, over	- - -	1,500,000

D. WHITNEY, Jr., President. EUGENE HARBECK, Secretary.

This Company will transact a Hull and Cargo business on the Lakes during the season of 1892.

LOSSES PROMPTLY PAID. INSURE IN A STRONG HOME COMPANY. **DETROIT, MICH.**

MARINE AND INLAND INSURANCE.

ATLANTIC MUTUAL INSURANCE COMPANY,

(ORGANIZED 1842.) Office, 51 Wall Street, NEW YORK.

Insures against Marine and Inland Transportation Risks and will issue Policies making Loss Payable in England.

Assets over $10,000,000 for the Security of its Policies.

The profits of the Company revert to the assured, and are divided annually upon the premiums terminated during the year; thereby reducing the cost of insurance. For such dividends, certificates are issued bearing interest until ordered to be redeemed, in accordance with the charter.

J. D. JONES, Prest. W. H. H. MOORE, Vice-Prest. A. A. RAVEN, 2nd Vice-Prest. J. H. CHAPMAN, Secy.

CAPITAL $300,000.

The Marine Bank Company,

Incorporated in 1891 under State Law. CLEVELAND, OHIO.
Successors to E. B. HALE & CO., established in 1852.

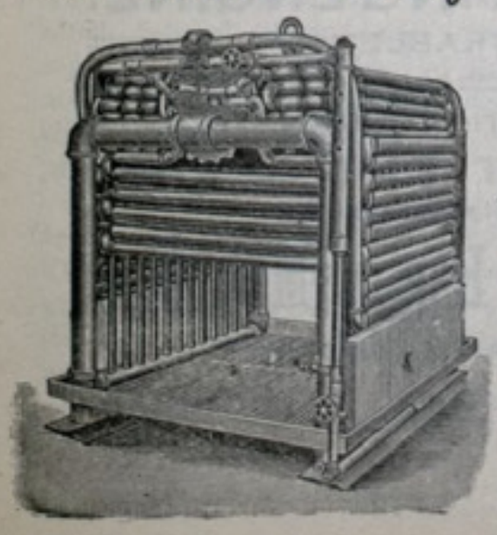
DIRECTORS:

W. H. BARRISS, President. H. C. RANNEY, Vice-President. W. B. HALE, Cashier.
C. E. BURKE. THOS. FITZPATRICK. THOS. H. WHITE. MARTYN BONNELL.

Would be pleased to meet or correspond with any one whose present Banking relations are not entirely satisfactory, or who, for any reason, propose to open a new account.

We promise to make every effort to make our Bank a safe, agreeable and profitable place to do business.

The Roberts Safety Water Tube Marine Boiler,



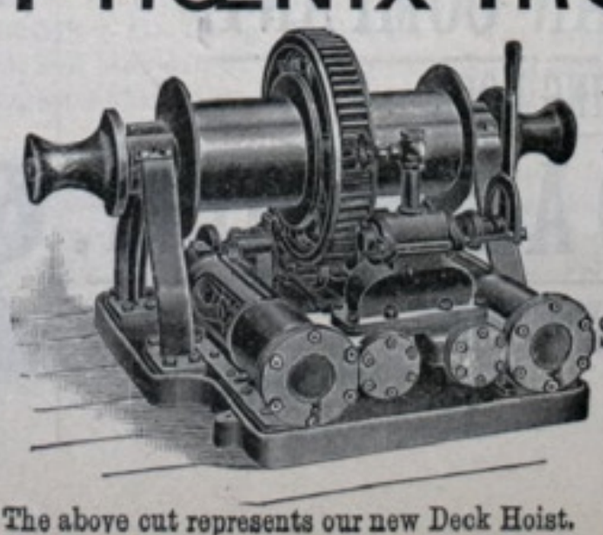
For YACHTS, LAUNCHES and other Steamers.
THE ORIGINAL FIXED WATER LINE PIPE BOILER.
"IMITATION THE SINCEREST FLATTERY."
We are collecting royaltics from the customers of many infringers.

NEARLY 400 IN USE.

SAFE, RELIABLE, SIMPLE, LIGHT WEIGHT, ECONOMICAL, NO SHOP REPAIRS, SMALL SPACE. Send for ILLUSTRATED PAMPHLET and other reading matter, with huudreds of enthusiastic letters from purchasers and engineers.

The Roberts Safety Water Tube Boiler Co.,
Works covering 1 2000 sq. ft. of ground at RED BANK, N. J.
18 Cortlandt Street, NEW YORK CITY.

PHŒNIX IRON WORKS,



The above cut represents our new Deck Hoist.

MANUFACTURERS OF
Modern Marine Engines, Boilers, Etc.

SPECIAL ATTENTION GIVEN TO REPAIRS.

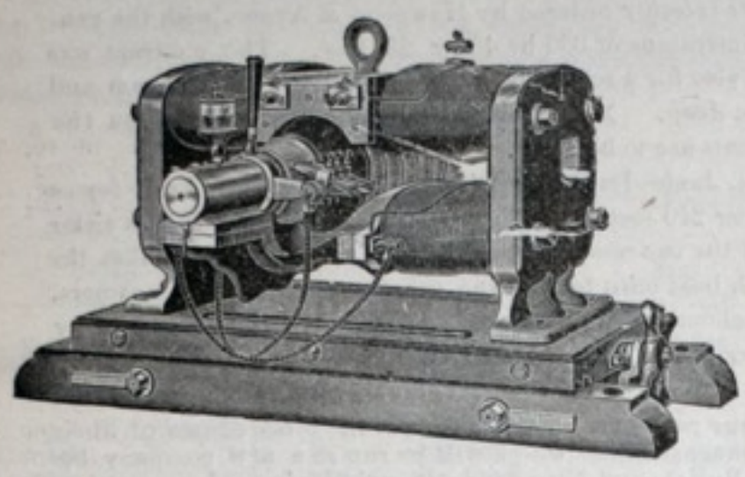
TELEPHONES: { Office, 15. Residence, 192.

PORT HURON, MICH.

FRANK E. KIRBY, President. RUDOLPHUS FULLER, Superintendent. R. HUMFFREYS-ROBERTS, Secretary and Manager.

Fontaine Crossing Co.,

Corner Russell Street and Boulevard, DETROIT, MICH.



MANUFACTURE THE CELEBRATED

FULLER DYNAMOS AND MOTORS,

The slowest speed and most perfectly Automatic Dynamo in the world, therefore

THE BEST FOR STEAMBOAT INSTALLATION.

NO VIBRATION.

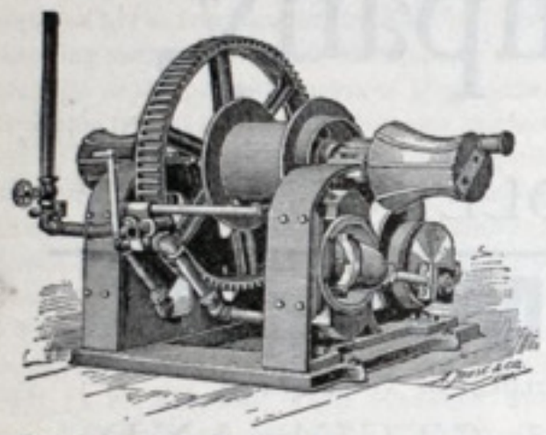
Signal Work a Specialty. **Ventilating Fans and Motors.**

Steamers already equipped with our Plants: E. C. POPE, MINNIE M., SOO CITY, SAPPHO.

Correspondence Solicited. **TELEPHONE 755.—4 Rings.**

LAKE SHORE IRON WORKS

Marquette, Mich.

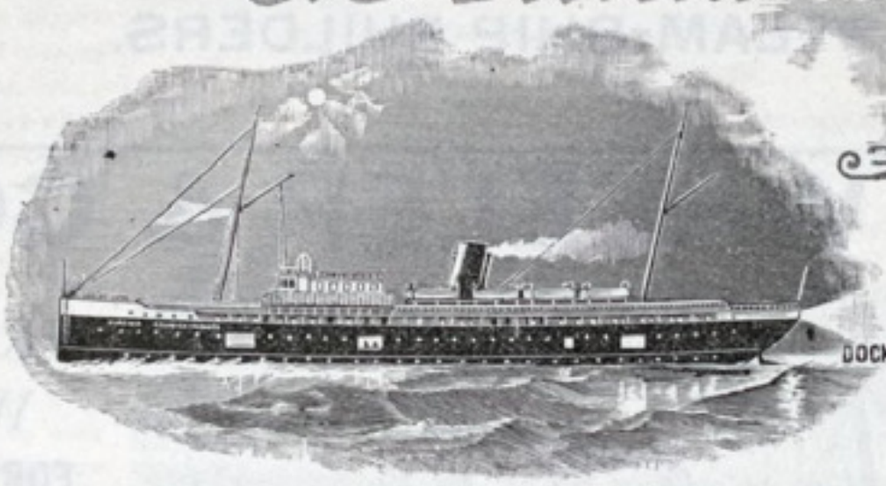


$360.00 DECK HOIST.

Stops, Starts and Reverses with one Lever.

Geared 6 to 1. 2 Cylinders, 3 in. by 6½ in.

O. S. Richardson Fueling Co.



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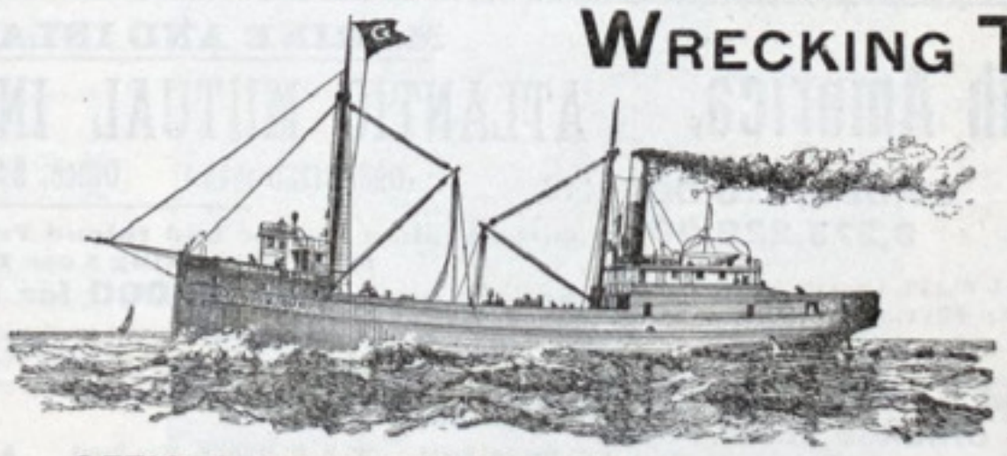

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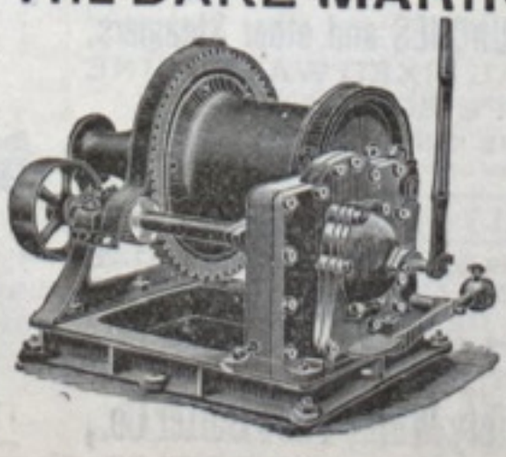

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